

ABSTRACT OF THE DISCLOSURE

There are provided a gate dielectric film formed on a semiconductor substrate; a gate electrode including: a first electrode layer formed on the gate dielectric film, a dielectric film having a thickness of 5 Å or more and 100 Å or less, and formed on the first electrode layer, and a second electrode layer formed on the dielectric film; and a source and drain regions formed in the semiconductor substrate at both sides of the gate electrode.